

which water vapor generator comprises a single chamber, wherein the size of the chamber determines the quantity of water available to the hydrogen gas generator; and wherein the passage of said water vapor and said hydrogen gas from the water vapor generator to the fuel cell is controlled by at least one valve; and wherein the power generator has a temperature of from about -20°C to about 50°C during operation.

23. (Original) The process of claim 22 further comprising:

c) directing any residual water vapor and any residual hydrogen gas from the fuel cell back to the water vapor generator.

24. (Original) The process of claim 22 further comprising directing water vapor and any present hydrogen gas from the water vapor generator to the hydrogen generator via at least one conduit, and directing hydrogen gas and any residual water vapor from the hydrogen gas generator to the fuel cell via at least one conduit.

25. (Original) The process of claim 22 further comprising directing water vapor and any present hydrogen gas from the water vapor generator to the hydrogen generator via at least one conduit, and directing hydrogen gas and any residual water vapor from the hydrogen gas generator to the fuel cell via at least one conduit; and directing any residual water vapor and any residual hydrogen gas from the fuel cell to the water vapor generator via at least one return line.

26. (Original) The process of claim 22 wherein the water vapor generator comprises a chamber at least partially filled with water vapor.

27. (Canceled).

28. (Original) The process of claim 22 wherein said substantially non-fluid substance comprises a material selected from the group consisting of alkali metals, calcium hydride, lithium hydride, lithium aluminum hydride, sodium borohydride and combinations thereof.

29. (Original) The process of claim 22 wherein said substantially non-fluid substance comprises sodium borohydride.

30. (Original) The process of claim 22 wherein said substantially non-fluid substance is in powder, pellet or granule form.

31. (Original) The process of claim 22 further comprising pumping said water vapor and any present hydrogen from said water vapor generator to said hydrogen gas generator.

32. (Original) The process of claim 22 further comprising heating said fuel cell with a heater.

33. (Original) The process of claim 22 comprising directing water vapor from the water vapor generator to the hydrogen gas generator by pressure from a tensile membrane within the water vapor generator.

34. (Currently Amended) The process of claim 22 further comprising causing an initial flow of water vapor from the water vapor generator to the hydrogen gas generator via at least one device valve attached to at least one of said water vapor generator, said hydrogen generator or said fuel cell.

35. (Previously Presented) In an improved process for generating electrical energy wherein water and hydrogen gas are directed from a water containing chamber to a fuel cell; and water and any residual hydrogen gas are directed from the fuel cell back to the water containing chamber; and water and hydrogen gas are directed through a hydrogen gas generator, which hydrogen gas generator is connected to each of the fuel cell and water containing chamber and which hydrogen gas generator is at least partially filled with a substance which reacts with water to generate hydrogen gas, wherein the improvement comprises contacting water in the form of water vapor with a substantially non-fluid substance which reacts with water vapor to generate hydrogen gas; which water

vapor generator comprises a single chamber, wherein the size of the chamber determines the quantity of water available to the hydrogen gas generator and wherein the passage of said water vapor and said hydrogen gas from the water vapor generator to the fuel cell is controlled by at least one valve or at least one pump; and wherein the power generator has a temperature of from about  $-20^{\circ}\text{C}$  to about  $50^{\circ}\text{C}$  during operation.

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (Previously Presented) A process for generating hydrogen gas for fueling a fuel cell comprising:

a) directing water vapor from a water vapor generator to a hydrogen generator, said hydrogen generator being at least partially filled with a substantially non-fluid substance which reacts with water vapor to generate hydrogen gas; and

b) directing hydrogen gas and any residual water vapor from the hydrogen generator to a fuel cell;

which water vapor generator comprises a single chamber, wherein the size of the chamber determines the quantity of water available to the hydrogen gas generator; and wherein the passage of said water vapor and said hydrogen gas from the water vapor generator to the fuel cell is controlled by at least one pump; and wherein the power generator has a temperature of from about  $-20^{\circ}\text{C}$  to about  $50^{\circ}\text{C}$  during operation.